



Market Analysis for Commercial Investment Real Estate

11

Case Study 3: Industrial Properties

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Case Study 3: Industrial Properties

Case Study Goal

The goal of the industrial case study is to apply the CCIM Strategic Analysis Model to select the best location for a new distribution center. Consider three alternative properties which could possibly meet the needs of 1) potential prospect to be a lead tenant and or 2) determine the feasibility for a new development based on current supply and demand.

Case Study Objectives

- Delineate a target market area map using fifteen (15) mile radius from prospective user's location using STDB mapping tools.
- Create a layered map showing three (3) sites under consideration to determine if they are in the target market area using STDB mapping tools.
- Determine available labor based on 30-minute drive time from a given location using STDB.
- Delineate a delivery service area for a 30-minute truck drive time from a given location using STDB mapping tools.
- Determine the total cost of each site on a cost per net useable square foot after any demolition or reduction for unusable area of the site using provided assumptions.
- Discuss the political and legal issues for an identified location to identify a potentially go or no-go decision for an identified location.
- Determine what the developer can pay for a site based on future potential rental rates, absorption and demand for a given submarket site using a given rent comparison report.
- Conduct a Financial Feasibility Analysis to determine the required rent and land acquisition cost to achieve targeted investment yield.
- Prepare your site recommendation based on the strength and weakness of an identified site including both qualitative and quantitative facts identified in completed tasks.

Case Study 3: Industrial Property

Client Background

Your client, Centric Solutions, develops industrial buildings to lease and/or sell once stabilized. This client typically likes well located sites with good access in or near large industrial parks. This market is under served for product of this type and there is demand. The client will be able to address other needs created by today's changing dynamics (e-commerce), lack of developable land at affordable prices and overall lack of product.

Centric Solutions wants to identify a site that will be enticing to a user. The user is looking at all options to accomplish the following:

- Locate approximately 500,000 sf in a single facility for manufacturing and warehouse use.
- Site should be within 15 miles of their current facility in Plano, Texas 75074.
- Be able to deliver space at costs lower than competing area markets.

Client Situation

Centric Solutions is looking to buy a 40-65-acre site for a future development in the Northeast Dallas area in effort to meet their user's needs. Three sites are being considered and you and your team(s) have been asked to analyze the sites then present your findings.

- Site 1: McKinney, Texas; intersection of Wilmeth Road and US-75
 - ▣ 65 gross acres
 - ▣ Zoned Agriculture, but within an existing industrial park
 - ▣ Site issues: small creek running along southern side and encompasses approximately five acres, which is not developable
 - ▣ Cost of site is \$2.40 psf on gross acreage
- Site 2: Mesquite, Texas; intersection of Interstate 635, Mesquite, and US-80
 - ▣ 50 net acres
 - ▣ Zoned Agriculture near a residential and industrial developments
 - ▣ No site issues
 - ▣ Cost of site is \$2.80 psf on net acreage

- Site 3: Valwood/Farmers Branch Submarket; intersection of President George Bush Turnpike and I-635)
 - ▣ 40 net acres
 - ▣ Zoned Industrial
 - ▣ Site Issues: two vacant, but functionally obsolete, 200,000 sf warehouse buildings with cost to demolish both; cleanup site is \$250,000, this is in addition to cost to acquire the site
 - ▣ Cost to acquire two buildings is \$20.00 per building square foot

The user's considerations and expectations include the following:

- The existing labor of user Company live within 10 miles of Plano, Texas, but the key personnel live in Plano, Texas.
- The desired labor is 21-45 years old, with high school degrees, and median HH incomes between \$40,000 and \$55,000.
- The user wants their facility to be within one 500,000 sf structure.
- Available labor for new employees is very important.
- The user desires to lease space for ten years with two options to renew for five years.
- Rental rate and operating expense costs are important.
- Legal and Political considerations and potential impact on time and money to be discussed and evaluated

The developer considerations and expectations include the following:

- Attracting the 500,000-sf user is desirable as it would reduce lease-up risk of overall project. Assume the user will need the building in 18 months.
- Assume each site will have a building coverage ratio of 50 percent. Assume the developer will build out the site to its full capacity.
- If not able to attract the big user, then choose the site that would give the best chance of leasing the site to other prospective users given supply and demand.
- Assumed the cost of construction for buildings will be \$50.00 per square foot. Cost for the site will be in addition to the construction cost and total cost will impact rental rates. Developer profit shall be equal to the total cost multiplied by 8 percent of total cost.

- Submarket supply, demand, rental rates and absorption will be key in attracting the final user.

Scope of Analysis

Each site has its own unique characteristics different from the others. The developer will measure the pros and cons of each site to determine where they would be comfortable to invest in a new development. You will determine the viability of your assigned site for a new development.



Location and Site Analysis

Task 11-1: Target Markets for Prospective User

Objectives

- Delineate a target market area map using fifteen (15) mile radius from prospective user's location using STDB mapping tools.
- Create a layered map showing three (3) sites under consideration to determine if they are in the target market area using STDB mapping tools.

Rationale

The STDB mapping advanced options provides for an analysis of the desired area where the targeted user would consider locating their new facility.

Resources

STDB website <https://www.stdb.com/>

Use STDB to create two maps in this task, 15-mile radius around existing site for this task, then layer 30-minute drive time for each site location. The objective is twofold: (a) to determine the impact that increased commuting times will have upon the workforce of the prospective user; and (b) to compare the amount of available labor within a reasonable commuting distance of each of the three alternative sites.

Description of Steps

1. In STDB select Business Analyst panel
2. Load map and then zoom into the Dallas/Fort Worth metropolitan area (can double click or use Census Tract zoom level).
3. Drop a pin at the intersection of Jupiter Rd. and PGBT (in Plano, TX)
4. Draw a 15-mile radius around the above noted intersection.
5. Drop a pin for each of the 3-sites listed in the Client Situation narrative.
6. Create a 30-minute drive time polygon for each site.

Note Your Findings

1. Do all the prospective sites fall within the 15-mile radius? **Yes**

End of task



Task 11-2: Prospective Sites and Labor Analytics

Objective

Determine available labor based on 30-minute drive time from a given location using STDB for the three sites under consideration to determine how they rank for attracting the desired labor pool consisting of:

- 21-45 years old
- With high school degrees
- Median HH incomes between \$40,000 and \$55,000

Rationale

The STDB tool enables potential tenants of the building to determine the available work force within 30 minutes of the project (car drive time). This is vital information to understand how your facility compares to other available facilities you may be competing with.

Resources

STDB to create comparison report

Description of Steps

1. Use Task 11-1 map, select Reports to create custom comparison report
 - Add variables – median household income (create own variable \$40,000 - \$55,000), ages 21-45, high school education
2. Run comparison report including all three areas

Note Your Findings

1. Based upon the desired labor pool, does one site have a clear advantage over the others, and why?

McKinney has the highest median household incomes; Valwood has the highest population; and Mesquite has the highest percentage of high school educated.

2. If employees live closer to a particular work site, how much of a factor does that contribute to workforce retainment?

Shorter commute times favor workforce retainment.

End of task



Task 11-3: Truck Drive Time Analysis

Objective

- Delineate a delivery service area for a 30-minute truck drive time from a given location using STDB mapping tools.

Rationale

The STDB tool provides a visual analysis of the distance a truck can travel from a given site. This is a useful tool to demonstrate to the prospective user the service areas they can cover compared to other location options.

Resources

- STDB.com
- Executive Summary Report (static report for backup)

Steps

1. Start with map in Task 11-2
2. Remove 15-mile radius
3. Select Reports to run an Executive Summary Report including each study area

Note your findings

1. What is the total population that can be serviced within a 30-minute drive time for each of the three sites?

As of 2019: Mesquite = 2.114 million; Valwood = 3.192 million; McKinney = 1.448 million

2. What is the total number of households that can be serviced within a 30-minute drive time for each of the three sites?

As of 2019: Mesquite = 761 thousand; Valwood = 1.213 million; McKinney 524 thousand

3. Based upon customer access, does one site have a clear advantage over the others, and why?

The Valwood site serves the most population and households within a 30-minute drive time

End of task

Financial Analysis



Task 11-4: Land Basis Cost by Site

Objective

Determine the total cost of each site on a cost per net useable square foot after any demolition or reduction for unusable area of the site using provided assumptions.

Rationale

Understanding the total cost basis in each site including land, building, financing etc., is needed to determine the amount of rent needed to cover all the front-end costs.

Resources

- Client Situation set up information

Description of Steps

1. Determine the allocated land cost / SF of building for each of the three potential sites.
2. Determine the net buildable square footage for each of the three potential sites.
3. After the initial 500,000 SF building is constructed, determine how much additional building square footage can be constructed on each of the potential sites.

Note Your Findings

1. Which is the lowest allocated land cost/SF of the three potential sites?
The McKinney site with an allocated land cost of \$5.20/SF
2. Which of the three sites has the highest additional building area that could accommodate future potential construction? (Determine net sf for each site.)

The McKinney site with 806,800 SF of additional building area

3. Which of the three sites has the highest investment risk if the remaining excess land area isn't developed in the future? Why?

The McKinney site with 806,800 SF of additional building area x \$5.20/SF allocated land cost per SF of building = \$4,195,360 of potentially undeveloped land value

4. Which of the three sites is likely to have the greatest challenges during the construction process? Why?

The Valwood site has existing buildings that need to be demolished. The Mesquite site requires rezoning.

End of task

Political and Legal Analysis



Task 11-5: Political and Legal Issues

Objective

Discuss the political and legal issues for an identified location to identify a potentially go or no-go decision for an identified location.

Considerations:

- Zoning (city website)
- Incentives (economic development corp.)
- Roll back taxes (central appraisal district)
- Environmental conditions (state environmental district)
- Site plan approvals (city planning department)

Use case set up information. Can do additional research at suggested resources.

Rationale

Political and legal issues can be detrimental to the project, add cost or time. You will need to know and understand political and legal issues so you can mitigate the effects or go on to the next deal.

Suggested Resources

- City Website (Zoning information, Long Range City Plan can be found here)
- TCEQ Website (Texas Commission for Environmental Quality) Environmental guidelines etc. can often be found here.
- Economic Development Corporations for each site, web site Key contacts for answers to questions like what incentives might be offered.
- Seller comments (questionnaire completed about land before sale) This is typically included in the Phase I Environmental Report and is an opportunity to gain knowledge and about a site.

Description of Steps

Divide the resources and conduct your research. Discuss your findings with your group, then note your findings.

Note Your Findings

1. Are there any environmental or regulatory issues to be considered prior to property purchase?

Potential environmental issues with existing Valwood buildings.

2. What incentives could be requested from the city by the purchaser?

Student answers will vary (open for discussion).

3. What are potential political or legal barriers?

Rezoning requirements with Mesquite site.

End of task

Market and Competitive Analysis



Task 11-6: Market Conditions Analysis

Objective

Determine what the developer can pay for a site based on future potential rental rates, absorption and demand for a given submarket site using a given rent comparison report.

Rationale

Current and future rental rates, absorption and demand can be used to help determine what the rents will be when this proposed project is ready for occupancy. The forecasted rental rates, absorption and demand are critical in determining what you can pay for the site. Each market has conditions and price points and you may be able to pay more for land in one area than you could in another.

Resources

Given REIS property comp report for submarket of each site including:

- Industrial Rent Comp Report
- Comparable Group Property Listings
- Alternative resource: Google or other Internet sources to search for specific information about the targeted industrial property

Description of Steps

1. Identify the average rental rates for comparable buildings in the area
2. Identify the average absorption rate and new deliveries
3. Consider the amount of Tenant Improvements being offered and paid for by the Landlord.

Note Your Findings

1. What is the average rental rate for your site?

As of 3Q2019:

Site 1: 6.92/SF Site 2: \$4.21/SF Site 3: \$5.11/SF

2. What is the average absorption rate for your site?

As of 3Q2019:

Site 1: 41,700 SF/qtr.

Site 2: 1,700 SF/qtr.

Site 3 154,000 SF/qtr.

3. How long will it take to lease up the new space being built?

Student answers will vary

End of task

Financial Analysis



Task 11-7: Financial Feasibility Analysis

Objective

Conduct a Financial Feasibility Analysis to determine the required rent and land acquisition cost to achieve targeted investment yield.

Considerations:

- Current market
- Vacancy and absorption rates to estimate changes to the future market conditions over the next 24 months for the local industrial submarket.
- Determine the viability of a new development considering the cost to build, expected returns and what we think the market will provide in terms of rent.

Rationale

Conducting Financial Feasibility Analysis includes creating a front-door/back-door analysis spreadsheet to determine the financial feasibility for each site. A front-door approach determines how much market rent will be required to achieve the targeted investment yield. A back-door approach determines how much can be spent on land acquisition to achieve the targeted investment yield.

Resources

- Financial Feasibility Analysis Excel workbooks for the 3 locations
- REIS Submarket Executive Briefings

Description of Steps

1. Complete the financial analysis including all costs including 12-month lease up and carry cost.
2. Review the Reis analysis to determine the current market rents and average vacancy rates for each of the three submarkets.
3. For each of the three submarket areas:
 - a. Input the Land Cost / Net SF for each submarket into the Development Budget Input (tab 3 / line 5) worksheet.

- b. Input the current average asking rent and average vacancy rate for each submarket into the Income & Expense Input (tab 4 / lines 2 & 3) worksheet.
- c. Press both “Calculate” buttons in Cost Mark-up Feasibility (tab 7) and the Rent Constant Feasibility (tab 8) worksheets.

Note Your Findings

1. What will the market allow you to charge for your new development?

Student answers will vary

2. Based upon the results in the Sale Proceeds (tab 10 / line 13), what is the Pro Forma Profit for your site?

Site 1: 21,142,607 Site 2: 778,572 Site 3: 11,718,580

3. Based upon the results in the Sale Proceeds (tab 10 / line 14), what is the Net Profit Mark-up on Cost for your site?

Site 1: 80.8% Site 2: 2.93% Site 3: 18.39%

4. Based upon the results in the Sale Proceeds (tab 10 / line 13), what is the Net Rent Constant Spread for your site?

Site 1: 5.36% Site 2: 0.19% Site 3: 1.22%

5. Which site provides the highest financial feasibility? Why?

Site 1: McKinney site which has the highest potential profit

End of task



Task 11-8: Your Recommendation

Objective

Prepare your site recommendation based on the strength and weakness of an identified site including both qualitative and quantitative facts identified in previous tasks.

Rationale

With the notation of the pros and cons of your site, you can sell the Developer on all the attributes of your site which will be the best alternative to buy and develop.

Resources

Collective findings from Tasks 11-1 through 11-7.

Description of Steps

1. Identify the attributes of the site including labor, rental rates and tell the story of why this is the best site to attract the potential user
2. Using the metrics derived in previous tasks, tell the story of how this site would be an excellent site for potential unknown users
3. Using the market knowledge of the area and subsequent cost structure to explain how well this project would lease if the Developer were to buy and build the project on a speculative basis.

Note Your Findings

Include the following:

1. What is the final solution you have arrived at based on the analyses conducted?
 - a) Industrial submarket and why this is the best overall location
 - b) Recommended site that best meets the desired location criteria and why this is the best choice
 - c) Recommended lease term and lease options to be negotiated and why this is the recommended site for the developer
 - d) Expected average annual occupancy cost including rent, total operating expenses, and parking costs if applicable
 - e) Labor available for the prospective tenant or tenants
2. How does your solution address the customer's expectations and needs?
3. What are the associated risk for each site if you don't get the user? (follow up class discussion)

Recommendations will vary based on variable data and interpretation findings.

End of task